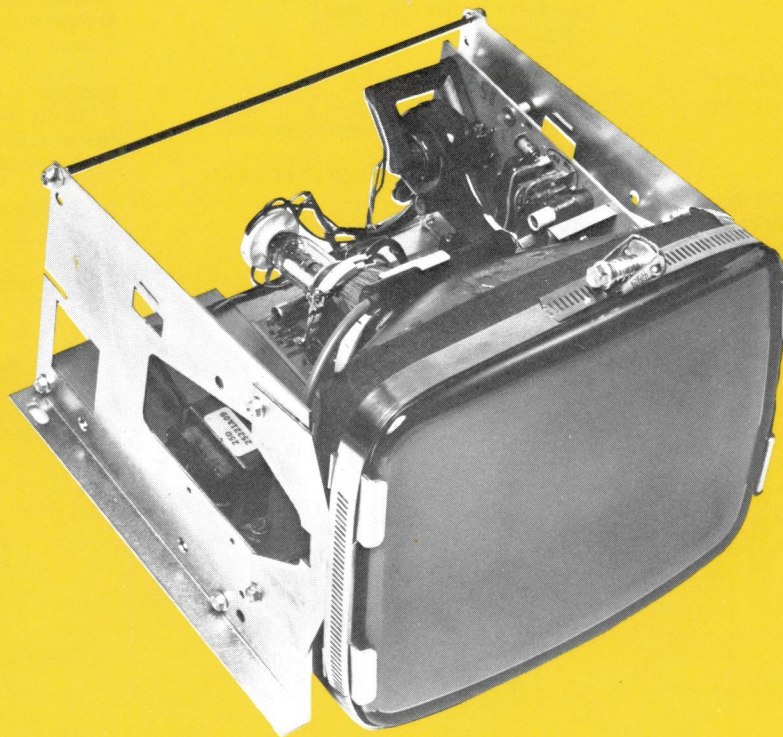




**MOTOROLA**

# MODEL M2000 9-INCH DISPLAY MODULE

1-99 100-499 500-999  
114.60 99.65 93.55



Motorola's 9-inch modular display is a compact, versatile unit ideally suited to data entry and other basic system applications.

**MODULAR CONSTRUCTION** Plug-in boards and modules are arranged on a sturdy, lightweight metal frame which may be easily adapted to a variety of mechanical configurations.

**SOLID STATE** All components (except the picture tube) are completely transistorized.

**AC OR DC POWER** The M2000 operates on 12V DC at less than one amp, making it independent of international power considerations. If desired, 115/230V AC operation is also available.

**SIGNAL INPUTS** Choice of composite video or TTL separate sync inputs allows greater design and application flexibility.

**RESOLUTION** Video response to 12MHz and the excellent geometry and small spot size of the picture tube combine to assure 650-line horizontal resolution for sharp picture detail.

**LOGIC POWER SUPPLY** For logic subsystems requiring DC power, this option provides up to 15VA of logic power furnished from the AC supply module in the display.

**SERVICEABILITY** 99% of the module circuitry is contained on easily removable printed circuit boards for simple, expedient field maintenance.



## SPECIFICATIONS, MODEL M2000

### PICTURE TUBE

9" measured diagonally (228 mm)  
44 sq. in. viewing area (284 sq. cm)  
90° deflection angle  
Integral implosion protection  
P4 phosphor standard  
(Other standard EIA phosphors and bonded anti-reflective faceplate optionally available.)

### POWER INPUT

12V DC at 900 ma (standard)  
115/230V AC, 30 watts nom., 50/60Hz (optional)

### LOGIC POWER SUPPLY

(Optional) Logic power up to 15VA (5V DC,  $\pm 12V$  DC) can be furnished from AC supply module in display.

### INPUT SIGNALS

COMPOSITE VIDEO INPUT: 0.5V to 2.5V composite P/P, sync negative, (input impedance  $75 \Omega$  terminated,  $12K \Omega$  unterminated)  
or

TTL SEPARATE HORIZONTAL, VERTICAL, VIDEO: 2.5V to 5.0V P/P, sync positive at input, (input impedance  $75 \Omega$  video termination,  $> 2K \Omega$  vertical and horizontal)

### VIDEO RESPONSE

Within 3dB, 10Hz to 12MHz

### PULSE RISE TIME

30V rise in 40 ns

### RESOLUTION

650 lines center, 500 lines corners

### GEOMETRIC DISTORTION/ LINEARITY

Less than 2%

### HIGH VOLTAGE

9.5KV at 50  $\mu A$  beam current, nominal

### HORIZONTAL BLANKING INTERVAL

11.0  $\mu s$  required

### SCANNING FREQUENCY

Horizontal 15,750Hz  $\pm 500$ Hz  
Vertical 50/60Hz

### CONTROLS

INTERNAL: brightness; vertical size; vertical linearity; horizontal size; raster centering; vertical hold; horizontal hold; contrast. BRIGHTNESS is optionally available as an external control. External CONTRAST control is available on composite video input model only.

### DIMENSIONS

7.25" high (184 mm)  
9.50" wide (241 mm)  
9.48" deep (241 mm)

### WEIGHT

Net: 7-5/8 lbs. (3.46 kg)  
Shipping: 9lbs. (4.08 kg)

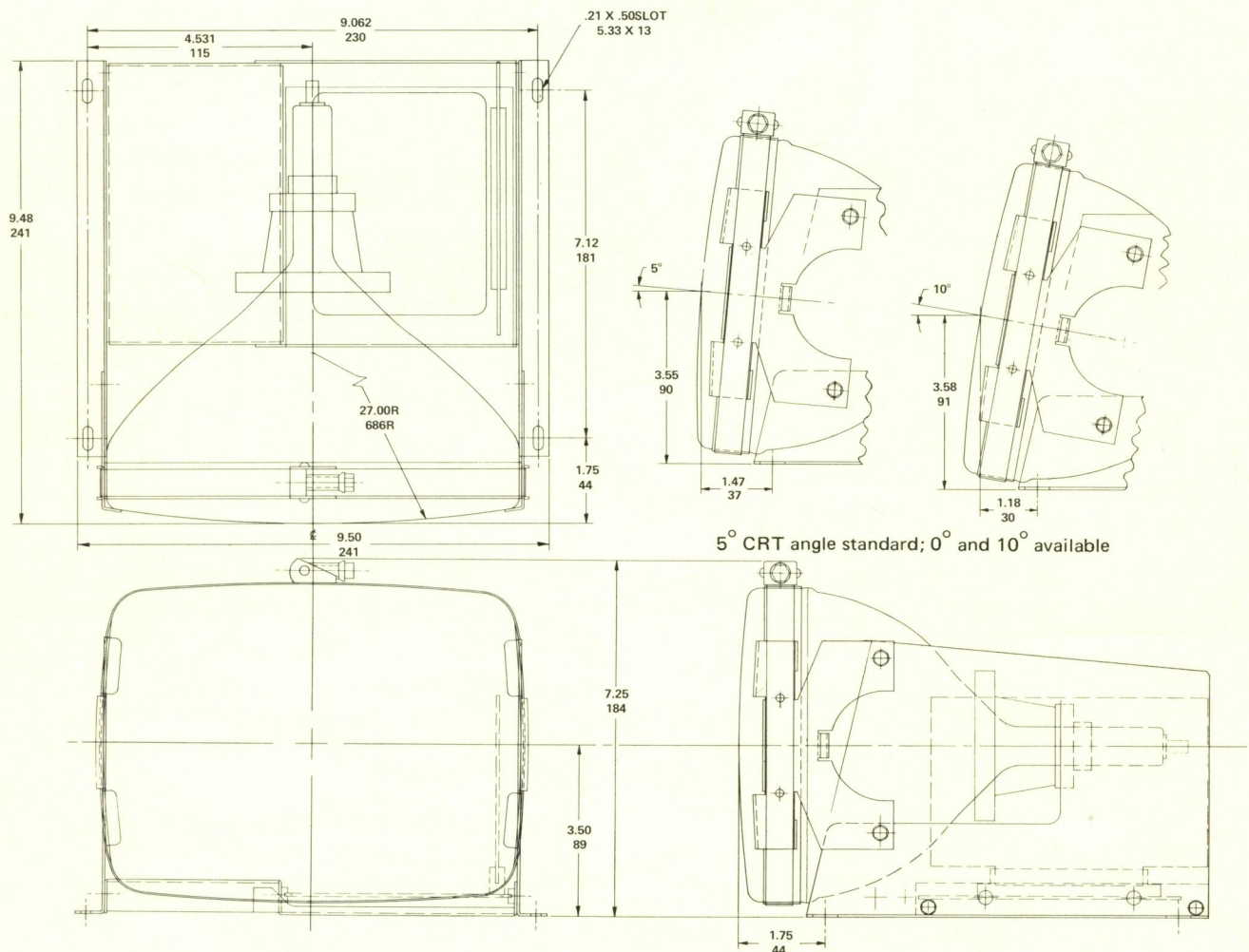
### ENVIRONMENT

Operating temp: 0°C to 55°C  
Storage temp: -40°C to +65°C  
Operating altitude: 10,000 ft. max. (3048 meters)

Designed to comply with applicable DHEW rules on X-Radiation  
Designed to enable listing under UL Specification 478

*Specifications subject to change without notice.*

*All dimensions are in inches millimeters*



**MOTOROLA Display Products**

455 EAST NORTH AVENUE, CAROL STREAM, ILLINOIS 60187

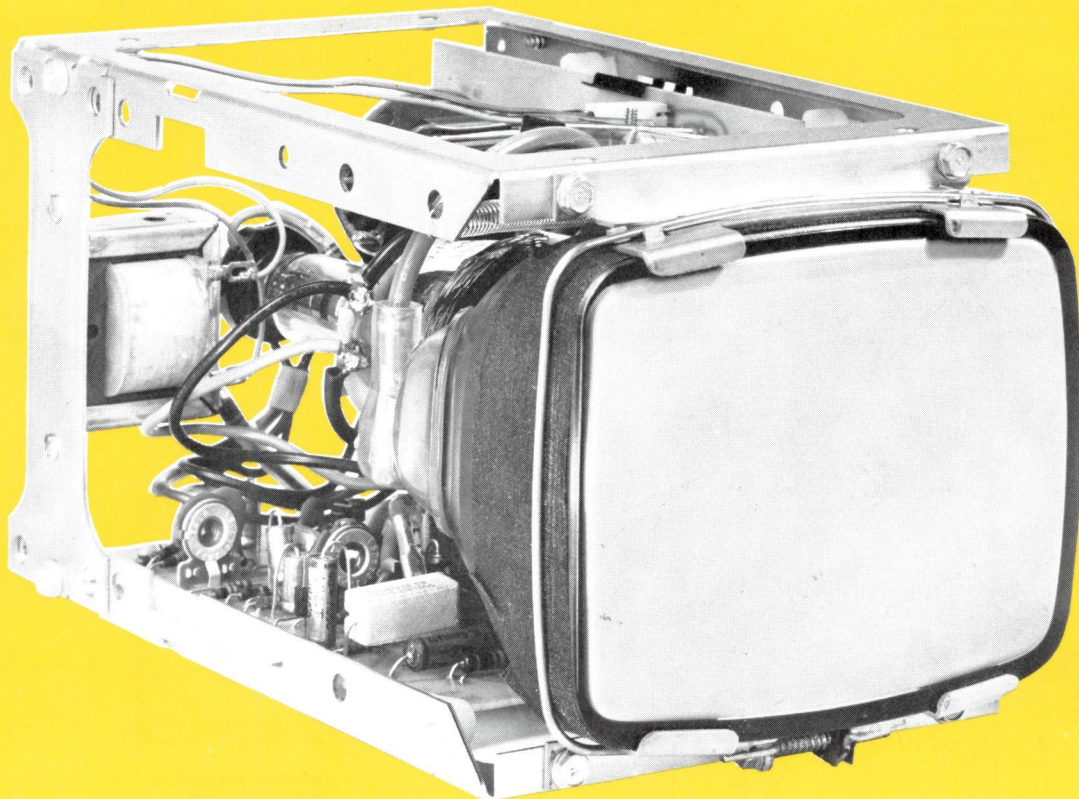




**MOTOROLA**

# MODEL M1000 5-INCH DISPLAY MODULE

1-99 100-499 500-999  
107.13 93.15 87.45



Motorola's modular 5-inch display provides versatile performance features, contained on plug-in boards and modules, and placed in a compact chassis that fits right into point-of-sale and similar terminals which require a small, distinctly readable display.

**PLUG-IN DESIGN** — Motorola's M1000 is completely modular. The entire unit simply slides in to connect and operate immediately. To remove, just slide out. There are no wires to connect or disconnect, no tools needed.

**SOLID STATE** — All components (except the picture tube) are completely transistorized.

**SIGNAL INPUTS** — Choice of composite video or TTL separate sync inputs allows greater design and application flexibility.

**AC OR DC POWER** — The M1000 operates on 12V DC at less than one amp, making it independent of international power considerations. If desired, 115/230V AC power is also available.

**RESOLUTION** — Video response to 12MHz and the excellent geometry and small spot size of the picture tube combine to assure 650-line horizontal resolution for sharp picture detail.

**LOGIC POWER SUPPLY** — For logic subsystems requiring DC power, this option provides up to 15VA of logic power furnished from the AC supply module in the display.

**SERVICEABILITY** — 99% of the module circuitry is contained on two easily removable printed circuit boards for simple, expedient field maintenance.



## SPECIFICATIONS, MODEL M1000

### PICTURE TUBE

5" measured diagonally (127 mm)  
13 sq. in. viewing area (84 sq. cm)  
55° deflection angle  
P4 phosphor

### POWER INPUT

12V DC at 900 ma (standard)  
115/230V AC, 30 watts nom., 50/60Hz  
(optional)

### LOGIC POWER SUPPLY

(Optional) Logic power up to 15VA (5V DC,  $\pm 12V$  DC) can be furnished from AC supply module in display.

### INPUT SIGNALS

COMPOSITE VIDEO: 0.5V to 2.5V  
composite P/P, sync negative, (input impedance 75  $\Omega$  terminated, 12K  $\Omega$  unterminated)

or

TTL SEPARATE HORIZONTAL, VERTICAL, VIDEO: 2.5V to 5.0V P/P, sync positive at input, (input impedance 75  $\Omega$  video termination,  $> 2K \Omega$  vertical and horizontal)

### VIDEO RESPONSE

Within 3dB, 10Hz to 12MHz

### PULSE RISE TIME

20V rise in 40 ns

### RESOLUTION

650 lines center, 500 lines corners

### GEOMETRIC DISTORTION/ LINEARITY

Less than 2%

### HIGH VOLTAGE

9.5KV at 50  $\mu A$  beam current, nominal

### HORIZONTAL BLANKING INTERVAL

11.0  $\mu s$  required

### SCANNING FREQUENCY

Horizontal 15,720Hz  $\pm 500$ Hz  
Vertical 50/60Hz

### CONTROLS

INTERNAL: brightness; vertical size; vertical linearity; horizontal size; raster centering; vertical hold; horizontal hold; contrast. BRIGHTNESS is optionally available as an external control. External CONTRAST control is available on composite video input model only.

### DIMENSIONS

4.60" high (117 mm)  
5.16" wide (131 mm)  
9.18" deep (234 mm)

### WEIGHT

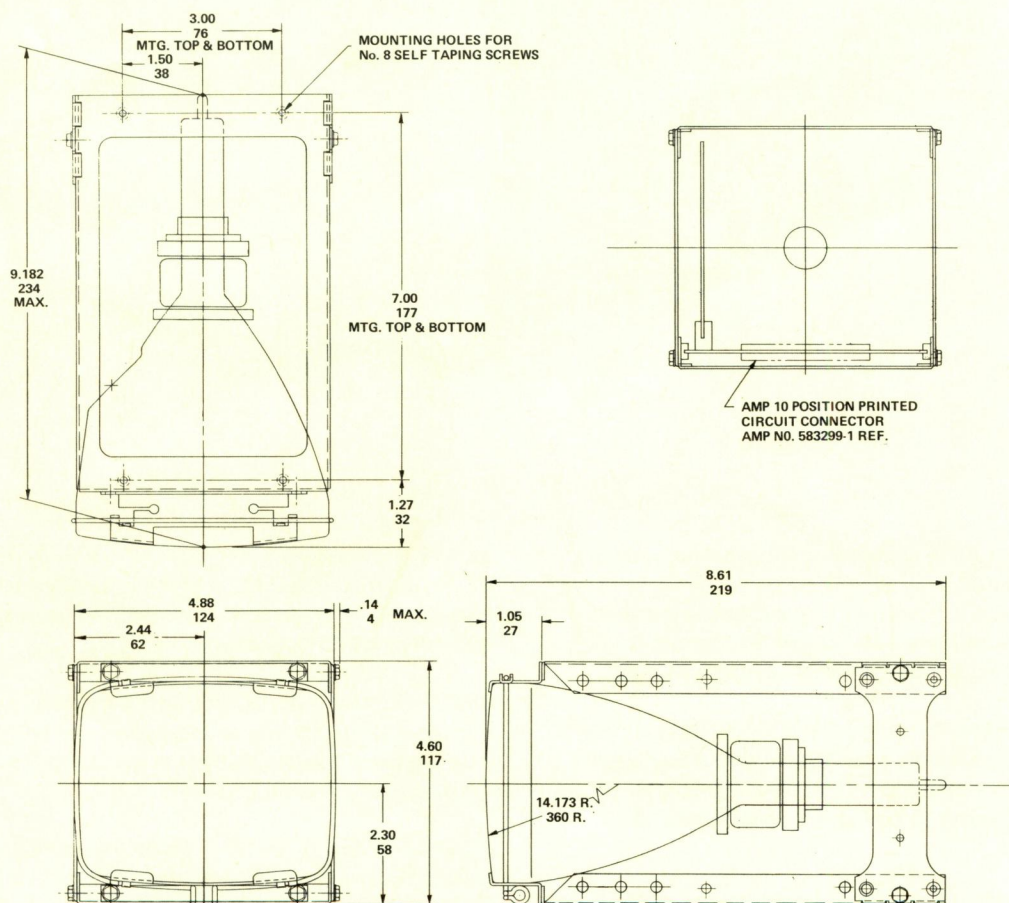
Net: 3-1/2 lbs. (1.6 kg)  
Shipping: 4-1/2 lbs. (2 kg)

### ENVIRONMENT

Operating temp: 0°C to 55°C  
Storage temp: -40°C to +65°C  
Operating altitude: 10,000 ft. max.  
(3048 meters)  
Designed to comply with applicable DHEW rules on X-Radiation  
Designed to enable listing under UL Specification 478

*Specifications subject to change without notice.*

*All dimensions are in inches  
millimeters*



**MOTOROLA Display Products**

455 EAST NORTH AVENUE, CAROL STREAM, ILLINOIS 60187